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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,117	06/23/2003	Toshikatsu Hazama	81788.0250	9090
26021	7590	08/16/2004	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			HO, HOAI V	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/602,117	Applicant(s) HAZAMA ET AL.	
	Examiner Hoai V. Ho	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☒ Claim(s) 6-13 and 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/23/03</u> . | 6) <input type="checkbox"/> Other: _____  |

1. This office acknowledges receipt of the following items from the Applicant:  
  
Information Disclosure Statement (IDS) was considered.  
  
Papers submitted under 35 U.S.C. 119(a)-(d) have been placed of record in the file.
2. Claims 1-20 are presented for examination.

***Claim Objections***

3. Claim 4 is objected to because of the following informalities:  
  
Claim 4, line 2, change “ rest” to --reset--.  
  
Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ooishi U. S. Patent No. 6058061.

Figure 26 of Ooishi is directed to a dynamic random access memory (DRAM) having are fresh-control function (FIG. 29) under control by an internal refresh-control signal (RSEF) comprising: a cell array having a plurality of DRAM cells divided into a plurality of blocks (B1-B4, col. 24, lines 37 and 38), the DRAM cells being driven through word lines for data transfer with bit lines (FIG 2); a decoder (FIG. 1 , 12 and 10) to select word lines and bit lines connected to the cell array; a sense amplifier (FIG. 1 , 14) to amplify data on the bit lines; a refresh counter (28) to generate an internal address signal (RADI) , the address being increased

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for each refresh to the cell array (col. 25, lines 13-16); a register (FLG1-FLG4, col. 24, lines 38 and 39), provided per block of the cell array, the register storing information indicating whether each block (B1 or B3, col. 25, lines 7-10) has been accessed; and a refresh limiter (224) to inhibit refresh to each block (B2 or B4, col. 25, lines 10-12) that has not been accessed. See col. 24, lines 23 to col. 25, lines 51.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooishi U.S. Patent No. 6058061.

Ooishi discloses all the subject matter claimed except for further comprising an external reset terminal through which the information stored in the register is initialized per block of the cell array. However, block 246 of FIG. 26 of Ooishi discloses that a flag decoder decodes the more significant two bits of an externally applied address signal AD. In response to this decoded signal, a flag activation circuit 248 activates the flag registers FLG1-FLG4 that are provided corresponding to memory blocks B1-B4 to indicate each block has been access or not. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use either the external reset terminal (claim 4) or a reset circuit (claim 5) of the claimed

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invention or Ooishi's flag decoder 246, since it has been held that these two circuits would perform the same functions such as for initializing the information stored in the register per block of the cell array.

7. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Takemae et al. (USP 6349068) and Kawagoe (USP 5623541) disclose a semiconductor memory device with a block refresh operation.

**Allowable Subject matter**

8. Claims 18-20 are allowed.

9. Claims 6-13 and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Claims 6-13 and 15-20 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure, taken individually or in combination, does not teach or suggest the claimed invention having a refresh-restriction releasing section that is data programmable for releasing the refresh limiter from refresh limit to the cell array and combinations thereof as recited in claims.

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

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12. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1777. Other inquiries of this application should be called to (571) 272-1562 or the fax number (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. Ho  
July 20, 2004



Hoai V. Ho  
Primary Examiner  
Art Unit 2818